

GENERIC · POWERTRAIN

P03C6

OBD-II TROUBLE CODE

P03C6

Cylinder 5 Combustion Performance

P03C6 indicates that the engine control module has detected a combustion quality problem specifically on cylinder number 5, typically by monitoring crankshaft speed fluctuations or ionization current. The computer has determined that cylinder 5 is not contributing its fair share of power compared to the other cylinders, which can be caused by ignition, fuel, or mechanical faults.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other symptoms besides the warning light
- Noticeable engine misfire or rough running, especially at idle or under light load
- Reduced engine power and poor acceleration
- Shaking or vibration felt through the steering wheel or seat
- Worsened fuel economy due to incomplete combustion
- Possible flashing check engine light if the misfire is severe enough to damage the catalytic converter

Common causes, most likely first

- 1 Worn or fouled spark plug on cylinder 5
- 2 Faulty ignition coil or spark plug wire for cylinder 5
- 3 Clogged or leaking fuel injector on cylinder 5
- 4 Vacuum leak affecting the intake runner for cylinder 5
- 5 Low compression due to worn piston rings, valves, or head gasket
- 6 Mechanical valvetrain issue such as a collapsed lifter or worn cam lobe
- 7 Wiring or connector problem to the cylinder 5 injector or coil



How to diagnose and fix it

- 1 Perform a visual inspection of the cylinder 5 ignition components and wiring for damage or corrosion
- 2 Swap the ignition coil and spark plug from cylinder 5 with a known-good cylinder to see if the misfire moves
- 3 Use a scan tool to check for pending or stored misfire counters and freeze-frame data to confirm the fault is consistent
- 4 Run a compression test and, if low, a cylinder leak-down test to rule out mechanical problems
- 5 Test the fuel injector for cylinder 5 with a noid light or injector balance test
- 6 Check for vacuum leaks at the intake manifold gasket and vacuum hoses near cylinder 5
- 7 Replace the faulty component (spark plug, coil, injector, or repair wiring) and clear the code to verify the repair

Cylinder 5 misfire traps you should not fall into

- A P03C6 can be set by a faulty crankshaft position sensor or reluctor wheel, causing the computer to misread cylinder 5 speed fluctuations even when combustion is normal.
- Many technicians replace the ignition coil first, but a leaking intake manifold gasket near cylinder 5 often causes a lean misfire that mimics a bad coil.
- The code does not always mean the cylinder is dead; a partially clogged injector can cause a subtle misfire that only appears under specific load and rpm conditions.
- If the misfire is intermittent, check the engine wiring harness for chafing near the cylinder 5 coil connector, as vibration can cause an open circuit that sets the code.
- A flashing check engine light with this code means the misfire is severe enough to overheat the catalytic converter, so stop driving immediately to avoid costly damage.

Can I keep driving with P03C6?

It is generally safe to drive with a steady check engine light, but avoid heavy acceleration and towing until the fault is repaired. If the check engine light flashes, stop driving immediately and have the vehicle towed to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool with misfire and freeze-frame data capability
- Spark plug socket and wrench
- Compression tester
- Noid light or injector balance tester
- Digital multimeter
- Vacuum gauge



Reading P03C6

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 3** Ignition system and misfire.
- C6** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0205** Injector Circuit/Open - Cylinder 5 · **P0300** Random/Multiple Cylinder Misfire Detected · **P0305** Cylinder 5 Misfire Detected · **P0355** Ignition Coil 'E' Primary/Secondary Circuit

See it working

Watch the animated explainer [Inline-Four Engine X-Ray: Firing Order 1-3-4-2](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p03c6/>

